Where to from here?

Larry L. Orr
Institute for Health and Social Policy
Bloomberg School of Public Health
Johns Hopkins University

Proportion of interventions that, in RCTs, had weak or no positive effects

- **Education:** 90% weak or no positive effects (of 90 interventions)
- **Employment/training:** 75% weak or no positive effects (of 13 interventions)
- **Business:** 80-90% weak or no positive effects (of 13,000 new products/strategies)
- **Medicine:** Reviews have found that 50-80% of positive results in initial ("phase II") clinical studies are overturned in subsequent, more definitive RCTs ("phase III").

My conclusion

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- If the hit rate is that low, we have to try *lots* of things
- And to try lots of things *without a corresponding increase in time and resources*, we need to learn how to do experiments cheaper, better, faster
- Recommend a staged approach:
  - Stage 1 Xs – cheap tests focused on central outcomes
  - Stage 2 Xs – more in-depth replications of interventions that appear to be effective in Stage 1

Cheaper experiments

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- Spend less on personal interviews, rely more on administrative data
- Don't do a full-blown process/implementation analysis; just document the implementation of the intervention so we know what was tested.
- Don't do a full-blown benefit-cost analysis until we know there are some benefits.

Examples – see Coalition for Evidence-Based Policy website. The Coalition is also sponsoring a procurement for experiments costing < $100,000.

Better experiments

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- Pay more attention to matching the sample with the population of policy interest
- Resist the temptation to search for significant effects *somewhere*. Adopt the confirmatory/exploratory framework and adjust tests of significant for multiple estimates. If confirmatory tests aren't significant, STOP.
- Pay more attention to replication, in light of low hit rate.

Examples: National Head Start Study;
IES Guidelines on multiple comparisons,
DOL replications of youth training programs, Coalition for Evidence-Based Policy Top Tier standards.

Faster experiments

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- Simplifying design will shorten both design and analysis stages
- Stage follow-ups – if there are no impacts at 2 or 3 years, don't follow sample for 5
- Embed experimental evaluations in rollout of new programs – randomly assign administrative units to control group
- Embed continuous RA in ongoing programs

Cheaper, better, faster experiments can…

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- Provide timely evidence of effectiveness of new initiatives and ongoing programs
- Serve as a routine management tool
- Yield large repositories of evidence on what works in specific areas

Examples: OMB requirement of rigorous evidence, Obama administration's evidence-based policy initiatives, rapid spread of Xs in development work (J-PAL, others), use in business (see Jim Manzi's book, *Uncontrolled*), What Works Clearinghouse, Coalition for Evidence-Based Policy

For additional information, copies of these slides, etc…

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Lorr5@jhu.edu